



```
LL      IIIIII  BBBB BBBB  EEEEEEEEE  SSSSSSSS  TTTTTTTTT  AAAAAA  BBBB BBBB  LL
LL      IIIIII  BBBB BBBB  EEEEEEEEE  SSSSSSSS  TTTTTTTTT  AAAAAA  BBBB BBBB  LL
LL      IIIIII  BB      BB  EEEEEEEEE  SS      SS  TTTT      TT  AA      AA  BB      BB  LL
LL      IIIIII  BB      BB  EEEEEEEEE  SS      SS  TT      TT  AA      AA  BB      BB  LL
LL      IIIIII  BB      BB  EEEEEEEEE  SS      SS  TT      TT  AA      AA  BB      BB  LL
LL      IIIIII  BBBB BBBB  EEEEEEEEE  SSSSSS  TT      TT  AA      AA  BBBB BBBB  LL
LL      IIIIII  BBBB BBBB  EEEEEEEEE  SSSSSS  TT      TT  AA      AA  BBBB BBBB  LL
LL      IIIIII  BB      BB  EEEEEEEEE  SS      SS  TT      TT  AAAAAAAAAA  BB      BB  LL
LL      IIIIII  BB      BB  EEEEEEEEE  SS      SS  TT      TT  AAAAAAAAAA  BB      BB  LL
LL      IIIIII  BB      BB  EEEEEEEEE  SS      SS  TT      TT  AA      AA  BB      BB  LL
LL      IIIIII  BBBB BBBB  EEEEEEEEE  SSSSSSSS  TT      TT  AA      AA  BBBB BBBB  LL
LLLLLLLL  IIIIII  BBBB BBBB  EEEEEEEEE  SSSSSSSS  TT      TT  AA      AA  BBBB BBBB  LLLLLL
LLLLLLLL  IIIIII  BBBB BBBB  EEEEEEEEE  SSSSSSSS  TT      TT  AA      AA  BBBB BBBB  LLLLLL
      . . . .

LL      IIIIII  SSSSSSSS
LL      IIIIII  SS      SS
LL      IIIIII  SS      SS
LL      IIIIII  SS      SS
LL      IIIIII  SSSSSS
LL      IIIIII  SSSSSS
LL      IIIIII  SS      SS
LL      IIIIII  SS      SS
LL      IIIIII  SS      SS
LL      IIIIII  SSSSSSSS
LLLLLLLL  IIIIII  SSSSSSSS
```

```
1 0001 0 MODULE LIB$ESTABLISH (XTITLE 'Establish a handler'
2 0002 0 IDENT = '1-002' ! File: LIBESTABL.B32 Edit: SBL1002
3 0003 0 ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1
7 0007 1 *****
8 0008 1 *
9 0009 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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26 0026 1 *
27 0027 1 *****
28 0028 1
29 0029 1
30 0030 1
31 0031 1 ++
32 0032 1 FACILITY: Utility Library
33 0033 1
34 0034 1 ABSTRACT:
35 0035 1
36 0036 1 This module places the address of a routine into the SRMSA_HANDLER
37 0037 1 offset of the callers stack frame, thereby setting up the routine
38 0038 1 as the callers error handler.
39 0039 1
40 0040 1 ENVIRONMENT: User mode, re-entrant, AST level or not or mixed.
41 0041 1
42 0042 1 AUTHOR: Jonathan M. Taylor CREATION DATE: 6-JUL-77
43 0043 1
44 0044 1 MODIFIED BY:
45 0045 1
46 0046 1 : VERSION
47 0047 1 01 - original
48 0048 1 0-2 - Use SF$ symbols. TNH 8-Oct-77
49 0049 1 0-3 - Declare PSECTs. TNH 19-Dec-77
50 0050 1 0-04 - Change to STARLET library. DGP 20-Apr-78
51 0051 1 0-05 - Change REQUIRE files for VAX system build. DGP 28-Apr-78
52 0052 1 0-06 - Change STARLET to RTLSTARLE to avoid conflicts. DGP 1-May-78
53 0053 1 0-07 - Change file name to LIBESTABL.B32, and change the name of the
54 0054 1 REQUIRE file similarly. JBS 14-NOV-78
55 0055 1 1-001 - Update version number and copyright notice. JBS 16-NOV-78
56 0056 1 1-002 - Use prologue file. SBL 24-Jun-1983
57 0057 1 --
```



```
.. 59      0058 1 |  
.. 60      0059 1 | PROLOGUE FILE:  
.. 61      0060 1 |  
.. 62      0061 1 |  
.. 63      0062 1 | REQUIRE 'RTLIN:LIBPROLOG';  
.. 64      0133 1 |  
.. 65      0134 1 |  
.. 66      0135 1 | TABLE OF CONTENTS:  
.. 67      0136 1 |  
.. 68      0137 1 |  
.. 69      0138 1 | FORWARD ROUTINE  
.. 70      0139 1 |  
.. 71      0140 1 | LIB$ESTABLISH;  
.. 72      0141 1 |  
.. 73      0142 1 |  
.. 74      0143 1 | MACROS:  
.. 75      0144 1 |  
.. 76      0145 1 |  
.. 77      0146 1 |  
.. 78      0147 1 | EQUATED SYMBOLS:  
.. 79      0148 1 |  
.. 80      0149 1 |  
.. 81      0150 1 |  
.. 82      0151 1 | OWN STORAGE:  
.. 83      0152 1 |  
.. 84      0153 1 |  
.. 85      0154 1 |  
.. 86      0155 1 | EXTERNAL REFERENCES:  
.. 87      0156 1 |  
.. 88      0157 1 |
```

! LIB\$ definitions

! Establish an error handler for the caller

```

: 90      0158 1 GLOBAL ROUTINE LIB$ESTABLISH (
: 91      0159 1     NEW_HANDLER) =      ! Adr of adr of users handler
: 92      0160 1
: 93      0161 1 ++
: 94      0162 1 FUNCTIONAL DESCRIPTION:
: 95      0163 1
: 96      0164 1     Move the address passed as an argument to the SF$A_HANDLER
: 97      0165 1     offset of the callers frame. Return address of old handler.
: 98      0166 1
: 99      0167 1 FORMAL PARAMETERS:
100      0168 1
101      0169 1     NEW_HANDLER.ra.v      Adr. of the routine to set up as handler
102      0170 1
103      0171 1 IMPLICIT INPUTS:
104      0172 1
105      0173 1     NONE
106      0174 1
107      0175 1 IMPLICIT OUTPUTS:
108      0176 1
109      0177 1     NONE
110      0178 1
111      0179 1 ROUTINE VALUE:
112      0180 1
113      0181 1     OLD_HANDLER.wa.v      previous contents of SF$A_HANDLER
114      0182 1     of the callers frame.
115      0183 1
116      0184 1 COMPLETION CODES:
117      0185 1
118      0186 1     NONE
119      0187 1
120      0188 1 SIDE EFFECTS:
121      0189 1
122      0190 1     The callers stack frame will be modified.
123      0191 1
124      0192 1 --
125      0193 1
126      0194 2 BEGIN
127      0195 2
128      0196 2 LOCAL
129      0197 2     OLD_HANDLER;      ! store the old handler address
130      0198 2 BUILTIN
131      0199 2     FP;
132      0200 2 MAP
133      0201 2     FP: REF BLOCK[ BYTE];
134      0202 2     OLD_HANDLER = .FP[SF$L SAVE FP];
135      0203 2     .FP[SF$L SAVE FP] = .NEW_HANDLER;
136      0204 2     RETURN .OLD_HANDLER;
137      0205 1 END;      !End of LIB$ESTABLISH
```

```
.TITLE LIB$ESTABLISH Establish a handler
.IDENT \1-002\
```

```
.PSECT _LIB$CODE,NOWRT, SHR, PIC,2
```

LIB\$ESTABLISH Establish a handler  
1-002

N 7  
16-Sep-1984 00:50:39 VAX-11 Bliss-32 V4.0-742  
14-Sep-1984 12:38:45 [LIBRTL.SRC]LIBESTABL.B32;1

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				0000	00000
	OC	50	OC	BE	DO 00002
		BE	04	AC	DO 00006
					04 0000B

.ENTRY LIB\$ESTABLISH, Save nothing  
MOVL @12(FP), OLD\_HANDLER  
MOVL NEW\_HANDLER, -@12(FP)  
RET

: 0158  
: 0202  
: 0203  
: 0205

; Routine Size: 12 bytes, Routine Base: \_LIB\$CODE + 0000

LIB\$ESTABLISH Establish a handler  
1-002

B 8  
16-Sep-1984 00:50:39  
14-Sep-1984 12:38:45

VAX-11 BLISS-32 V4.0-742  
[LIBRTL.SRC]LIBESTABL.B32;1

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(4)

: 139 0206 1 END  
: 140 0207 0 ELUDOM !End of module

PSECT SUMMARY

: Name Bytes Attributes  
: \_LIB\$CODE 12 NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

Library Statistics

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
:\$255\$DUA28:[SYSLIB]STARLET.L32;1	9776	1	0	581	00:00.8
:\$255\$DUA28:[LIBRTL.OBJ]RTLLIB.L32;1	36	0	0	8	00:00.1

COMMAND QUALIFIERS

: BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LIS\$:LIBESTABL/OBJ=OBJ\$:LIBESTABL MSRC\$:LIBESTABL/UPDATE=(ENH\$:LIBESTABL  
: )

: Size: 12 code + 0 data bytes  
: Run Time: 00:02.1  
: Elapsed Time: 00:08.8  
: Lines/CPU Min: 5971  
: Lexemes/CPU-Min: 8740  
: Memory Used: 29 pages  
: Compilation Complete



0206 AH-BT13A-SE  
VAX/VMS V4.0

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